

Active Recombinant Human Peroxiredoxin 2, His-tagged

Cat. No. PRDX2-1438H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	PRDX2 Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 198 amino acids and having a molecular mass of 21.8 kDa. The PRDX2 is purified by proprietary chromatographic techniques.
Species	Human
Source	Human
Description	PRDX2 is part of the peroxiredoxin family of antioxidant enzymes, which reduce hydrogen peroxide and alkyl hydroperoxides. PRDX2 takes part as an antioxidant protective role in cells. T-cells. PRDX2 has proliferative effect in cancer development or progression. If PRDX2 protection is insufficient against peroxidases, the DNA damage results in neurological disease such as Alzheimer's or DNA damage leading to cancer.
Form	The Peroxiredoxin solution contains 20 mM Tris-HCl pH-8, & 10% glycerol.
Purity	Greater than 90.0% as determined by SDS-PAGE.
Bio-activity	The specific activity was found to be approximately 200-230 pmole/min/g. The enzymatic activity was confirmed by measuring the remaining peroxide after incubation of PRDX2 and peroxide for 20 min at room temperature. Specific activity is defined as the amount of hydroperoxide that 1 ug of enzyme can reduce at 25°C for 1 minute.

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Physical Appearance	Sterile Filtered colorless solution.
Amino acid sequence	MASGNARIGK PAPDFKATAV VDGAFFKEVKL SDYKGKYVVL FFYPLDFTFV CPTEIIAFSN RAEDFRKLGK EVLGVSVDSQ FTHLAWINTP RKEGGLGPLN IPLLADVTRR LSEDYGVLTG DEGIAYRGLF IIDGKGVLRQ ITVNDLPVGR SVDEALRLVQ AFQYTDEHGE VCPAGWKPGS DTIKPNVDDS KEYFSKHN
Storage	PRDX2 although stable 4°C for 4 weeks, should be stored desiccated below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.
GENE INFORMATION	
Gene Name	PRDX2 peroxiredoxin 2 [Homo sapiens]
Official Symbol	PRDX2
Synonyms	PRDX2; peroxiredoxin 2; PRP; TSA; PRX2; TPX1; NKEFB; PRXII; TDPX1; MGC4104; peroxiredoxin-2; torin; NKEF-B; OTTHUMP00000165823; OTTHUMP00000165825; thioredoxin peroxidase 1; thiol-specific antioxidant 1; natural killer-enhancing factor B; thiol-specific antioxidant protein ;natural killer cell- enhancing factor B; thioredoxin-dependent peroxide reductase 1
Gene ID	7001
mRNA Refseq	NM_005809
Protein Refseq	NP_005800
MIM	600538

UniProt ID	P32119
Chromosome Location	19p13
Pathway	Selenium Pathway
Function	antioxidant activity; oxidoreductase activity; thioredoxin peroxidase activity
PDB rendering based on 1qmv	